

REMARKS

Claims 8 and 28-34 are pending. Claims 28, 29 and 34 have been amended. Claim 31 has been cancelled. No new claims have been added. No new matter has been added by virtue of the amendments. Support for the amendments to the claims can be found in the specification and claims as originally filed. Specifically, support for the amendment to claim 34 can be found on page 8 beginning at lines 12 and 25.

Any cancellation of the claims should in no way be construed as acquiescence to any of the Examiner's rejections and was done solely to expedite the prosecution of the application. Applicant reserves the right to pursue the claims as originally filed in this or a separate application(s).

Rejection of Claims 28 and 34 Under 35 USC 112, second paragraph

The Examiner has rejected claims 28 and 34 under 35 USC 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully traverse this rejection.

Instant claim 34 depends from claim 28. Instant claim 28 is drawn to a peptide compound which selectively binds to the extracellular portion of human PSMA and comprises at least 5 residues of the consensus sequence QKHHNYL (SEQ ID NO:109), and wherein the peptide is 9 amino acid residues in length. Instant claim 34 depends from the peptide of claim 28, wherein the peptide comprises one or more amino acid analogues which mimics the chemical structure of the peptide and retains the ability to bind PSMA or a PSMA expressing cell.

The Examiner argues that "innumerable modifications can be made to each amino acid to create infinite number of analogs (and) the incorporation of these infinite number of modified amino acids into peptides at any and all positions leads to number of analogs (and) represents countless number of peptides and therefore, the claim as recited as treated being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention." (Office Action, p.4).

As set forth in the previous response, as amino acid analogs are routinely used in the art, including from commercially available suppliers (e.g. Peptech Corp) such that the ordinary

skilled artisan would be able to make the claimed peptides containing analogs. The ordinary skilled artisan could then determine if the peptides fall within the scope of the claim, that is the **mimics the chemical structure of the peptide and retains the ability to bind PSMA or a PSMA expressing cell**, by using the functional assays described in the specification to test if the peptides selectively binds to the extracellular portion of human PSMA. Accordingly, while the instant claims encompass a number of analogues, the scope of the subject matter embraced by the claims is clear and the ordinary skilled artisan would find the claimed compounds to be described by the specification as filed.

Applicants respectfully request that the Examiner reconsider and withdraw the foregoing rejection.

Rejection of Claims 28-30, 32 and 33 Under 35 USC 102

The Examiner indicates that Applicants arguments and amendments to claims 28 and 29 have been fully considered and are persuasive (and) the rejection has been withdrawn.” (Office Action, p.4). The Examiner indicates that “a new grounds of rejection is made in view of amendments to claims 28 and 29 that introduces new matter.” (Office Action, p.4). Applicants respectfully traverse the foregoing rejection.

The Examiner indicates that “in the event the new matter is vacated and the claims restored to as originally presented by the applicant, the withdrawn rejection will be reinstated and maintained.” (Office Action, p.4).

Applicants have amended the claims as suggested by the Examiner. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the foregoing rejection.

The Examiner has rejected claim 28 under 35 USC 102(b) as being anticipated by Misawa (1998, Biochemical and Biophysical Research Communications, 244, 531 – 539). Applicants respectfully traverse the rejection.

Instant claim 28 recites a peptide compound which selectively binds to the extracellular portion of human PSMA and comprises at least 5 residues of the consensus sequence QKHHNYL (SEQ ID NO:109), and wherein the peptide is 9 amino acid residues in length.

The Examiner argues that “Applicants claim a peptide compound which selectively binds to the extracellular portion of human PMSA and comprises at least 5 residues of the consensus

sequence QKHHNYL (SEQ ID NO: 109) wherein the 5 residues are within a linear span of 7 amino acid residues.” (Office Action p. 6 – 7). The Examiner argues further that “Misawa et al. discloses a peptide sequence KHHNY within a linear span of 7 amino acid residues (and) since the reference discloses the peptide sequence KHHNY within a linear span of 7 amino acid residues in a peptide it is inherent that the peptide of the cited reference selectively binds to the extracellular portion of human PMSA.” (Office Action, p.7).

In order for a reference to anticipate the pending claims, the reference must teach each and every element that is set forth in the claims, either expressly or inherently (see, *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed Cir. 1987) and MPEP 2131).

Nowhere does the Misawa et al reference, expressly or inherently, teach or describe a peptide compound which selectively binds to the extracellular portion of human PSMA and comprises at least 5 residues of the consensus sequence QKHHNYL (SEQ ID NO:109), **and wherein the peptide is 9 amino acid residues in length.**

Based on the foregoing; Applicants submit that the claims are not anticipated by Misawa et al.

Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of the claims.

The Examiner has rejected claim 28 and 29 under 35 USC 102(b) as being anticipated by Alfonso (2000, *Journal of Virology*, 74(8), 3815 – 3831). Applicants respectfully traverse the rejection.

Instant claim 28 has been set forth above. Instant claim 29 depends from claim 28, wherein the peptide has at least 6 residues of the consensus sequence QKHHNYL (SEQ ID NO:109), and wherein the peptide is 9 amino acid residues in length.

The Examiner argues that the Alfonso reference “discloses a peptide sequence KHHNYL within a linear span of 7 amino acid residues... (and) since the reference discloses the peptide sequence within a linear span of 7 amino acid residues in a peptide it is inherent that the peptide of the cited reference selectively binds to the extracellular portion of human PMSA.” (Office Action, p.7).

Nowhere does the Alfonso et al reference, expressly or inherently, teach or describe a peptide compound which selectively binds to the extracellular portion of human PSMA and

comprises at least 5 residues of the consensus sequence QKHHNYL (SEQ ID NO:109), **and wherein the peptide is 9 amino acid residues in length.**

Based on the foregoing; Applicants submit that the claims are not anticipated by Alfonso et al.

Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of the claims.

Rejection of Claims 28 and 34 Under 35 USC 112, first paragraph

The Examiner has rejected claims 28 and 34 under 35 USC 112, first paragraph as failing to comply with the written description requirement. Applicants respectfully traverse this rejection.

Instant claim 28 recites a peptide compound which selectively binds to the extracellular portion of human PSMA and comprises at least 5 residues of the consensus sequence QKHHNYL (SEQ ID NO:109), and wherein the peptide is 9 amino acid residues in length.

The Examiner argues that “the claims have been amended to recite a phrase ‘within a linear span of 7 amino acid residues’ (and) the specification lacks any Ipsis Verbis support that would support the phrase.” (Office Action, p.5).

Applicants have amended the claims such that the phrase “within a linear span of 7 amino acid residues” is no longer recited in the claims.

Applicants respectfully request that the Examiner reconsider and withdraw the foregoing rejection.

CONCLUSIONS

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Dated: April 25, 2008

Respectfully submitted,

By 

Jonathan M. Sparks, Ph.D.

Registration No.: 53,624

EDWARDS ANGELL PALMER & DODGE
LLP

P.O. Box 55874

Boston, Massachusetts 02205

(617) 439-4444

Attorneys/Agents For Applicant